



PATENT Attorney Docket No. 030449

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of Zhang, et al.

Group Art Unit: 1626

Serial No.: 10/617,431

Filing Date: July 11, 2003

Title: NEW FLUOROUS TAGGING AND

SCAVENGING REACTANTS AND

METHODS OF SYNTHESIS AND

**USE THEREOF** 

## SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Pittsburgh, Pennsylvania 15222 February 4, 2005

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Applicants, in accordance with their duty of disclosure pursuant to 37 C.F.R. § 1.56, hereby advise the United States Patent and Trademark Office of the references listed on the accompanying form PTO/SB/08A (substitute for 1449A/PTO) *Information Disclosure Statement by Applicant*. A copy of each of the non-U.S. patent references cited therein is herewith enclosed. The enclosed references were cited in the International Search Report for the corresponding PCT application.

Express Mail" mailing label number \_\_EU150833645US

Date of Deposit February 4, 2005

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CER 1.10 on the date indicated above and is addressed to the Commissioner of Patents, P.O. Box 1450 Alexandria, VA 22313-1450

Applicants note that although the cited references may be relevant to the examination of the above-referenced application, under 37 C.F.R. § 1.97(h), the filing of this *Information Disclosure Statement* "shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in § 1.56(b)." Applicants further note that the filing of this *Information Disclosure Statement by Applicant* is not an admission that the references cited herein constitute prior art under 35 U.S.C. §§ 102-103 with respect to the captioned application.

Pursuant to 37 C.F.R. § 1.97(b)(3), Applicants submit that no fee is necessary for consideration of this *Information Disclosure Statement by Applicant*. Nevertheless, the Commissioner is hereby authorized to charge any additionally required fees deemed necessary for consideration of this *Information Disclosure Statement by Applicant* to Account No. 11-1110.

Respectfully submitted,

Joseph L. Kent

Registration No. 54,216

Kirkpatrick & Lockhart Nicholson Graham LLP Henry W. Oliver Building 535 Smithfield Street Pittsburgh, Pennsylvania 15222-2312

Telephone:

(412) 355-8315 (412) 355-6501

Facsimile:

\_\_\_\_

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

	Со	Complete if Known		
Substitute for form 1449A/PTO	Application Number	10/617,431		
	Filing Date	07/11/03		
INFORMATION DISCLOSUI	First Named Inventor	Wei Zhang		
STATEMENT BY APPLICAL	Art Unit	1626		
	Examiner Name			
(use as many sheets as necessar	y)			
Sheet 1 of 3	Attorney Docket Number	030449		

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Document Number  Number - Kind Code² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	

		FOREIGN F	PATENT DOC	UMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document  Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		GB 1,143,481	02/19/1969	Minnesota Mining		
		DE 1925555 with Derwent English abstract	01/28/1971	Walter Blöchl		
		GB 1269096	03/29/1972	Ugine Kuhlmann		
		English Abstract of JP 62205350	09/09/1987	Konishiroku Photo Industry Co., Ltd.		
		EP 0 248 697 A1 with Derwent English abstract	12/09/1987	ATOCHEM		
		English Abstract of JP 62278551	12/03/1987	Konica Co.		
		EP 0 354 297 A1	02/14/1990	Mitsui Toatsu Chemicals, Inc.		
		EP 0 468 531 A1	01/29/1992	Fuji Photo Film Co.		
		English Abstract of JP 07207021	08/08/1995	Tomoegawa Paper Co. Ltd.		
		WO 98/25916	06/18/1998	C&C Research Laboratories		
		WO 01/61332 A1	08/23/2001	University of Pittsburgh		

Examiner	Date	
Signature	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, -1116217 v1 0215785-0183 PI-1304526 vI

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>8</sup> Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

				Cor	Complete if Known		
Substitute for t	Substitute for form 1449A/PTO			Application Number	10/617,431		
				Filing Date	07/11/03		
INFOF	INFORMATION DISCLOSURE STATEMENT BY APPLICANT			First Named Inventor	Wei Zhang		
STATI				Art Unit	1626		
				Examiner Name			
(use as	(use as many sheets as necessary)						
Sheet	2	of	3	Attorney Docket Number	030449		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T²
		International Search Report from PCT/US03/21686, International Filing Date 11/07/2003, Fluorous Technologies	
		KISS, et al., "An improved design of fluorophilic molecules: prediction of the In P fluorous partition coefficient, fluorophilicity, using 3D QSAR descriptors and neural networks"; Journal of Fluorine Chemistry, 108 (2001) 95-109.	
		KLEIJN, et al., "Synthesis of Arylzinc Thiolates Containing Perfluoroalkyl Chains. Model Catalyst Precursors for the Enantioselective Zinc-Mediated 1,2-Addition of Dialkylzincs to Aldehydes in Fluorous Biphase Systems"; Organic Letters, (1999), Vol. 1(6), 853-855.	
		SCHWINN, et al., "Perfluoro-Tagged Benzyloxycarbonyl Protecting Group and Its Application in Fluorous Biphasic Systems"; Helvetica Chimica Acta, Vol. 85 (2002), 255-264.	
		FILIPPOV, et al., "Use of benzyloxycarbonyl (Z)-based fluorophillic tagging reagents in the purification of synthetic peptides"; Tetrahedron Letters, 43 (2002) 7809-7812.	
		CURRAN, et al., "Synthesis and Reactions of Fluorous Carbobenzyloxy (FCbz) Derivatives of α-Amino Acids"; Journal of Organic Chemistry, (2003), 68, 4643-4647.	
		BROWN, et al., "Preparation of N-1,1-di-H-perfluoroalkyl Amines"; Journal of Organic Chemistry, (1957), 22, 454.	
		ALLOUCH, et al., "Synthèses et réactivité avec des nucléophiles de sels de perfluoroalkylméthylèneoxy(trisdiméthylamino) phosphonium"; Journal of Fluorine Chemistry, 66 (1994) 31-38.	
		BILLARD, et al., "Reactivity of Stable Trifuoroacetaldehyde Hemiaminals. 2. Generation and Synthetic Potentialities of Fluorinated Iminiums"; J. Org. Chem., (2002), 67, 997-1000.	
		LINDSLEY, et al., "Fluorous-tethered quenching reagents for solution phase parallel synthesis"; Tetrahedron Letters, 43 (2002) 4225-4228.	

Examiner	Date	
Signature	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, -1116217 v1 0215785-0183

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Onder the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a

				Complete if Known		
Substitute for fo	om 1449A/PTO			Application Number	10/617,431	
				Filing Date	07/11/03	
INFORMATION DISCLOSURE			SURE	First Named Inventor	Wei Zhang	
STATE	STATEMENT BY APPLICANT			Art Unit	1626	
				Examiner Name		
(use as many sheets as necessary)						
Sheet	3	of	3	Attorney Docket Number	030449	

		NON PATENT LITERATURE DOCUMENTS			
Examiner Cite No.1		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			
		TRABELSI, et al., "Synthèse de glycosides et de nucléosides F-alkylés"; Journal of Fluorine Chemistry, 56 (1992) 105-107.			
		JOUANI, et al., "Synthèse des isocyanates de 2-F-alkyléthyle"; Journal of Fluorine Chemistry, 56 (1992) 85-92.			
		LINDSLEY, et al., "Fluorous-tethered amine bases for organic and parallel synthesis: scope and limitations", Tetrahedron Letters, 43 (2002) 6319-6323.			
		ZHANG, et al., "Fluorous elecctrophilic scavengers for solution-phase parallel synthesis", Tetrahedron Letters, 44 (2003) 2065-2068.			
			<u> </u>		

Examiner	Date	
Signature	 Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, -1116217 v1 0215785-0183

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.qov">www.uspto.qov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.